

### PILE FOUNDATION DESIGN

The design of piles for footings and bents requires careful thought and the best engineering judgment.

The foundation report will give information relative to foundation materials and other conditions to be encountered in the field in connection with pile driving. It will carry recommendations as to the types and lengths of piles which will be most suitable for use under these conditions.

It will be the designer's responsibility to select types of piles which meet the field requirements and, in addition, fulfill the requirements for economy, competitive bidding, availability, and practicability for the particular conditions prevailing at the site.

At sites where stream scour is not an important factor the relative economy of spread footings versus pile foundations should be investigated. At sites where stream scour is an important factor the use of piles is usually mandatory.

Designers should carefully study all available site information to determine if there will be interference with pile driving from overhead power or telephone lines, or underground utilities. The presence of such lines directly over or adjacent to areas in which piles are proposed to be driven may make it necessary to move the wires, use spread footings instead of piles, or even, in some cases, to relocate the road or the channel.

During the design, before the checking of plans is complete, representatives from Geology and the applicable Design Section shall review the foundation design. Pile items such as type, length, penetration, and seal course peculiar to the particular site shall be discussed. A brief written report of the conclusions reached shall be prepared on Foundation Review Form BD 88 and signed by those making the review.



Philip C Warriner



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